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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,586	12/18/2001	Dipankar Ray	P15049	7955
7590	12/28/2005		EXAMINER	
John Han Ericsson Inc. M/S EVW2-C-2 6300 Legacy Drive Plano, TX 75024			SCHUBERT, KEVIN R	
			ART UNIT	PAPER NUMBER
			2137	
DATE MAILED: 12/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/025,586

Applicant(s)

RAY ET AL.

Examiner

Kevin Schubert

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 19-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>08182003</u>  | 6) <input type="checkbox"/> Other: _____                                    |

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### DETAILED ACTION

Claims 1-12 and 19-22 have been considered.

#### *Election/Restrictions*

5            Claims 13-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/30/05.

#### *Claim Rejections - 35 USC § 112*

10           The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15           Claims 8-12 and 19-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant describes a mobile authentication server. It is unclear whether the authentication server, itself, is actually mobile or whether the authentication server is a mobile authentication server because it authenticates mobile devices. Appropriate correction is required.

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#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

25           (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30

Claims 1-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabuki, U.S. Patent No. 5,841,970, in view of Kippenhan, U.S. Patent Application Publication No. 2002/0010769, in

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further view of Ishibashi, U.S. Patent No. 6,728,379, in further view of Hammond, U.S. Patent Application Publication No. 2003/0078927.

As per claim 1, the applicant claims a method of communicating data securely with the following  
5 limitations which are met by the combination of Tabuki, Kippenhan, Ishibashi, and Hammond:

a) receiving a first authentication request from a mobile station (Tabuki: Col 6, lines 11-47;  
Kippenhan (claim 34); Hammond: [0012]);

b) providing a first key to said mobile station in response to said authentication (Tabuki: Col 6,  
lines 11-47; Kippenhan: claim 34);

10 c) receiving a second authentication request from a database server, said second authentication  
request further including said first key provided by said mobile station and a particular database record to  
which said mobile station is requesting access (Tabuki: Col 7, line 38 to Col 8, line 27);

d) determining whether said mobile station has authority to access said particular database  
record (Tabuki: Col 7, line 38 to Col 8, line 27);

15 e) instructing said database server to provide information associated with said requested  
database record to said mobile station wherein said information is encrypted (Tabuki: Col 7, line 38 to Col  
8, line 27; Ishibashi: Col 1, lines 16-59);

f) providing said mobile station with a second key enabling said mobile station to decrypt said  
information received from said database server using said second key (Tabuki: Col 7, line 38 to Col 8,  
20 line 27; Ishibashi: Col 1, lines 16-59);

Tabuki discloses a method of communicating data very similar to applicant's instant invention.  
More Specifically, Tabuki discloses a first station (20 of Fig 1) which communicates an authentication  
request which includes a first key to a database server (10 of Fig 1) to access data, for example banking  
records (Col 1, lines 46-50), on the database server. The database server may then provide the  
25 authentication request to an authentication server. The authentication server performs an authentication,  
and, in accordance with the response received, the database server provides information to the first  
station or does not provide information to the first station. Having the authentication process consigned to

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the external authentication server reduces the burden on the database server and simplifies the authentication process (Col 8, lines 10-27).

While Tabuki discloses that a user (first station) may be provided with a first key used for authentication (Col 6, lines 11-46), Tabuki is silent as to whether the first key is received at the user (first station) *after an authentication process*. Kippenhan discloses the well-known idea that a key may be received after an authentication process. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Kippenhan with those of Tabuki because incorporating an authentication process before receiving a first key makes the system more robust and secure by ensuring that a key is sent to the appropriate user.

Tabuki in view of Kippenhan disclose the idea that information is sent to a first station after an authentication process. However, Tabuki in view of Kippenhan do not disclose the idea that the data is encrypted. Ishibashi discloses the idea that encrypted data may be communicated between two computers for at least the reason that it increases security in the system by preventing leakage to a third party (Col 1, lines 16-18). It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Ishibashi with those of Tabuki in view of Kippenhan because utilizing encryption to communicate information increases security in the system by preventing leakage to a third party.

Tabuki in view of Kippenhan in further view of Ishibashi disclose all the limitations of the above claim, except for the limitation that the first station is a mobile station. Hammond discloses that a first station may be mobile wireless devices, such as PDAs or laptops. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Hammond with those of Tabuki in view of Kippenhan in further view of Ishibashi and utilize a PDA or laptops because the use of such devices would make the system more robust by allowing the first station to be mobile and able to gain access in situations where a wired connection is not possible.

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As per claim 2, the applicant describes the method of claim 1, which is met by Tabuki in view of Kippenhan in further view of Ishibashi in further view of Hammond, with the following limitation which is met by Tabuki:

Wherein said step of providing said first key to said mobile station further comprises the step of  
5 providing a time out period for said first key to said mobile station (Tabuki: Col 6, lines 11-29; Fig 4);

As per claims 3,5, and 7, the applicant describes the method of claim 1, which is met by Tabuki in view of Kippenhan in further view of Ishibashi in further view of Hammond, with the following limitation:

Wherein said information stored in said database server is encrypted using a data access key  
10 and said second key is generated from said data access key and said first key;

The combination of Tabuki, Kippenhan, Ishibashi, and Hammond teach that information stored in a database server is encrypted using a key (second key). However, the combination is silent as to whether the key is generated from the first key and another key (data access key). Examiner takes official notice that it is common and well-known in the art to build a key from more than one key. It would  
15 have been obvious to one of ordinary skill in the art at the time the invention was filed to use more than one key to build a key because doing so increases security in the system since a third party would have to know separate keys to construct the actual key used.

As per claim 4, the applicant describes the method of claim 1, which is met by Tabuki in view of  
20 Kippenhan in further view of Ishibashi in further view of Hammond, with the following limitation:

Wherein said step of instructing said database server to provide information to said mobile station further comprises the step of providing said database server with a third key wherein said third key is used by said database server to further encrypt said information (Tabuki: Col 6, lines 30-42; Ishibashi: Col 1, lines 16-59).

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Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tabuki in view of Kippenhan in further view of Ishibashi in further view of Hammond in further view of Takamoto, U.S. Patent Application No. 2002/0108060.

5           As per claim 6, the applicant describes the method of claim 1, which is met by Tabuki in view of Kippenhan in further view of Ishibashi in further view of Hammond, with the following limitations which are met by Takamoto:

          a) receiving a third authentication request from said database server requesting authorization to update said particular database record by said mobile station (Tabuki: Col 7, line 38 to Col 8, line 27;

10       Takamoto: [0041]);

          b) determining whether said mobile station has authority to update said database record (Tabuki: Col 7, line 38 to Col 8, line 27; Takamoto: [0041]);

          c) instructing said database server to allow said mobile station to update information associated with said database record (Tabuki: Col 7, line 38 to Col 8, line 27; Takamoto: [0041]);

15           d) providing said mobile station with said second key enabling said mobile station to encrypt any information to be transmitted over to the database server to be updated at said database record (Tabuki: Col 7, line 38 to Col 8, line 27; Takamoto: [0041]);

          The combination of Tabuki, Kippenhan, Ishibashi, and Hammond meet all the limitations of claim 1. However, the combination is silent as to whether updating is done by the mobile station. Takamoto  
20       discloses the idea that updating may be done after an authentication process. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Takamoto with those of Tabuki in view of Kippenhan in further view of Ishibashi because doing so makes the system more robust by allowing the mobile station to update content and make changes to information stored on the database server.

25

          Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabuki in view of Ishibashi in further view of Hammond.

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As per claims 8 and 19, the applicant describes a method of communicating data securely which is similar to that of claim 1 with the exception that applicant does not include the step authenticating a user before providing a first key. Accordingly, the Kippenhan reference which was used to meet this  
5 limitation in the rejection of claim 1 has not been applied.

As per claims 9 and 20, the applicant describes the method of claims 8 and 19, which are met by Tabuki in view of Ishibashi in further view of Hammond, with the following limitations:

- a) receiving a second encryption key from said authentication server (Tabuki: Col 6, line 30-42;  
10 Ishibashi: Col 1, lines 16-59);
- b) encrypting said stored information using said second encryption key (Tabuki: Col 6, line 30-42;  
Ishibashi: Col 1, lines 16-59);
- c) providing said encrypted information to said wireless device (Tabuki: Col 6, line 30-42;  
Ishibashi: Col 1, lines 16-59).

15

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tabuki in view of Ishibashi in further view of Hammond in further view of Takamoto.

As per claim 12, the applicant describes the method of claim 8, which is met by Tabuki in view of  
20 Ishibashi in further view of Hammond, with the following limitations which are met by Tabuki in view of Takamoto. The limitations and reasons for combination have been explained in the rejection of claim 6.

Claims 10-11 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabuki in view of Ishibashi in further view of Hammond in further view of Dang, U.S. Patent Application No.  
25 2003/0101113, in further view of Honjo, U.S. Patent Application No. 2002/0049912.

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As per claims 10-11 and 21-22, applicant describes the method of claims 8 and 19, which are met by Tabuki in view of Ishibashi in further view of Hammond, with the following limitation which is met by Dang and Honjo:

Wherein said step of receiving said request from said wireless device to access said information further comprises the step of receiving a session key generated by said authentication server from said wireless device (Dang: [0016]; Honjo: claim 11);

Tabuki in view of Ishibashi in further view of Hammond disclose all the limitations of claims 8 and 19. However, the combination is silent as to receiving a request which includes a session key generated by the authentication server from said wireless device. Dang teaches including a session key, in a request, for authentication purposes. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Dang with those of Tabuki in view of Ishibashi in further view of Hammond and include a session key in the request as a further means to authenticate the mobile station.

Tabuki in view of Ishibashi in further view of Hammond in further view of Dang are silent as to the generation of the session key from a server. Honjo discloses the idea that a session key may be generated by a server and provided to a mobile station. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Honjo with those of Tabuki in view of Ishibashi in further view of Hammond in further view of Dang and generate the session key at the authentication server because doing so increases security in the system by ensuring that the session key is generated by a trusted source and doing so allows the session key computation to take place at the authentication server, thereby reducing computation capacity required at the mobile station.

### ***Conclusion***

This action is made non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

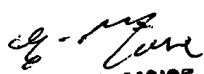
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application  
5 Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10

KS

  
**EMMANUEL L. MOISE**  
**SUPERVISORY PATENT EXAMINER**

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